



**THE
ONTARIO WATER RESOURCES
COMMISSION**

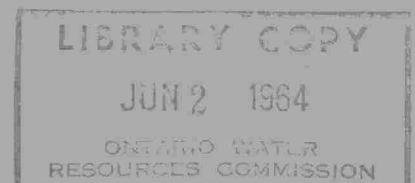
**REPORT ON

WATER POLLUTION SURVEY

OF THE

MUSKOKA LAKES**

JULY 1963



Copyright Provisions and Restrictions on Copying:

This Ontario Ministry of the Environment work is protected by Crown copyright (unless otherwise indicated), which is held by the Queen's Printer for Ontario. It may be reproduced for non-commercial purposes if credit is given and Crown copyright is acknowledged.

It may not be reproduced, in all or in part, for any commercial purpose except under a licence from the Queen's Printer for Ontario.

For information on reproducing Government of Ontario works, please contact ServiceOntario Publications at copyright@ontario.ca

REPORT

ON A

WATER POLLUTION SURVEY

OF THE

MUSKOKA LAKES

BY

THE ONTARIO WATER RESOURCES COMMISSION

JULY 1963

REPORT

ONTARIO WATER RESOURCES COMMISSION

INTRODUCTION

Samples for bacteriological examination were obtained from Lakes Muskoka, Joseph and Rosseau; Lake of Bays; and Fairy, Mary and Peninsula Lakes on July 22, 24, and 29, 1963, respectively.

Similar surveys were conducted in 1961 and 1962.

Municipal and private water pollution control plants were inspected in most instances to determine if they were producing effluents of acceptable quality for discharge to surface waters. Individual reports were prepared on these installations and were directed to the authorities concerned.

The lake sampling programme, inspections and report preparation were the responsibility of Mr. P. Lonergan, Engineer's Assistant.

The very warm and sunny weather during the week beginning July 22, 1963, was conducive to recreational activities such as swimming, water skiing and boating by the summer residents. The weather on July 29, 1963, although somewhat cooler was also favourable for these activities.

SAMPLING PROCEDURE

The samples were taken in the vicinity of the larger tourist and settled areas on the lakes and in the vicinity of known sources of pollution and treated waste discharges. The majority of the samples

were collected within 100 feet of the shore-line and approximately one foot below the surface. In all but a few instances samples were collected closer to the shore-line than was the case in 1962. Some surface samples were also collected. Six ounce samples were obtained for bacteriological examination. The tests were performed at the Ontario Water Resources Commission Laboratory. The laboratory results of the samples collected from the various sources are tabulated in Tables No. 1 to 7, with the corresponding 1962 results.

SUMMARY OF BACTERIOLOGICAL EXAMINATION RESULTS OF LAKE SAMPLES

The membrane filter technique was employed to obtain a direct enumeration of coliform organisms and the number is reported per 100 millilitres. Surface waters having a total coliform count greater than 2400 per 100 millilitres as determined by this technique do not meet the recognized objectives for surface water quality set forth by the Commission for all waters in the Province of Ontario.

The samples secured from Lake Muskoka in the vicinity of the Gravenhurst wharf and the stream which receives the effluent from the water pollution control plant serving this municipality revealed coliform counts of 7,000 and 8,000 per 100 millilitres respectively. A count of 7,000 per 100 millilitres was indicated at the junction of the locks and river in Port Carling.

The bacterial results of samples collected from Lake Joseph, Lake Rosseau and Peninsula Lake were satisfactory.

A sample obtained from the Ronville Point area, Lake of Bays

revealed a coliform count of 20,000 per 100 millilitres.

The samples collected from the Muskoka River at the Highway No. 11A bridge in Huntsville and from the mouth of the Muskoka River downstream from Huntsville showed coliform counts of 1,600 and 5,800 per 100 millilitres respectively.

One of the six samples obtained from Mary Lake disclosed a count of 4,900 per 100 millilitres.

DISCUSSION

It should be pointed out that only one survey was conducted in 1963 as was the situation in 1962. The collection of additional samples at these sampling points may have shown further deterioration or improvement. As in 1962 some of the sampling points were in the vicinity of known sources of pollution and treated waste discharges.

The high coliform count in the bay adjacent to the creek receiving the effluent from the Gravenhurst water pollution control plant may be attributed to the fact that the chlorinator had not been placed into operation as was scheduled. Subsequent to the survey however this unit was placed into service. It should be pointed out that the effluent from this plant was not of acceptable quality.

Bacterial contamination of the Muskoka River downstream from Huntsville may be attributed to local sources of pollution which have not been directed to the municipal sewage works. Generally, it may be said that the effluent from the Huntsville water pollution control plant was of acceptable quality.

SUMMARY AND CONCLUSIONS

During the latter part of July 1963, the Muskoka Lakes were sampled. One hundred and three samples were obtained for bacteriological examinations. The laboratory results revealed that six samples exceeded the Ontario Water Resources Commission's objective of 2,400 coliform organisms per 100 millilitres. One of these adverse samples was collected at a new sampling point. Ninety-seven samples had coliform counts of less than 2,400 organisms per 100 millilitres indicating that the quality of the water in the Muskoka Lakes was for the most part satisfactory for recreational activities. It should be pointed out that the water from these lakes or any other surface supply should receive the minimum treatment of chlorination if it is to be used for human consumption.

A continuing assessment is being made of the quality of known waste discharges and new sources located or brought to the attention of this Commission. Where water quality objectives are not being maintained the Commission is requiring remedial measures to be effected.

The satisfactory quality of the waters in the Muskoka Lakes can be secured and maintained for the following purposes; source of domestic water supply, navigation, fish and wild life, bathing, recreation, agriculture and other riparian activities. This will be possible only if there is public acceptance of pollution abatement

programmes and continued and active support by all concerned.

All of which is respectfully submitted

District Engineer


C. H. Kretch

Approved by


K. H. Sharpe, Director

TABLE 1
LAKE MUSKOKA

Sampling Point No.	Location	M.F. Coliform Count/100 ml.	
		1962	1963
MU-1	Gravenhurst Wharf Area	2,100	7,000
1A	Vicinity of Creek Outlet from Gravenhurst W.P.C.P.	1,300	8,000
2	Gravenhurst Area	900	90
3	Ontario Hospital School- Gravenhurst (off Water Works)	60	7
3A	Ontario Hospital School- Gravenhurst (off W.P.C.P.)	1,500	6
4	Lighthouse Narrows Area	134,000	4
5	Muskoka Beach Area (Muskoka Sands Beach Area)	34	39
6	Ennis Bay (Beach Area)	31	0
7	Stephens Bay (Beach Area)	6	0
8	Off St. Elmo	700	25
9	North Muskoka River Mouth	66	2,000
10	Sandy Bay (North of Bangor Lodge)	111	8
11	Boyd Bay Area (Lake-Land Lodge & Tamarac Lodge Vicinity)	4	5
12	Off Tonder Island (West Side Beaumaris Lodge Vicinity Swimming Area)	14	3
12A	Off Tondern Island (West Side Beaumaris Lodge Vicinity Dock Area)	-	27

TABLE 1 (cont'd)

LAKE MUSKOKA

Sampling Point No.	Location	M.F.Coliform Count/100 ml.	
		1962	1963
MU-12A*	Off Tondern Island (West Side Beaumaris Lodge Vicinity Dock Area)	-	12
13	Milford Bay (Beach Area)	1,200	3
13A	North-east section Milford Bay	7,400	59
14	Port Keewaydin (Scarcliff dock)	56	2
15	Narrows - south end of Mirror Lake	24	7
16	Narrows - north end of Mirror Lake	57	0
17	Port Carling at junction of locks and river	67	7,000
18	Mortimers Point Area	12	4
19	North Bay Area	4	1
20	Dudley Area (White Rock Cott. Vicinity)	1,800	47
21	Bala Park Area (Jeannette Narrows Vicinity)	3	30
22	Bala Area (Torrance Vicinity)	21	94
23	Bala @ Templeton's Marina	38	19
23*	Bala @ Templeton's Marina	-	24
23A	Bala Falls Area	24	143
24	Barlochan Area @ Schell Marina	21	22

*Note: Asterisk indicates surface sample.

TABLE 1 (cont'd)

LAKE MUSKOKA

Sampling Point No.	Location	M.F. Coliform Count/100 ml.	
		1962	1963
MU-25	Walkers Point Area	22	-
25A	The Ark	38	8
26	Campbell's Landing	32	11

TABLE 2

LAKE JOSEPH

Sampling Point No.	Location	M.F.Coliform Count/100 ml.	
		1962	1963
JO-1	Cox Bay Area	42	7
2	Elgin House Swimming Area	500	3
3	Glen Home Swimming Area	400	11
4	Joseph River Mouth	5	5
5	Craigie Lea Area	6	-
6	Stanley Bay @ Stanley House dock	4	5
7	Barnesdale Area (New C.N.I.B. vicinity)	28	4
8	Footes Bay Area - South Dock	1,200	75
9	Footes Bay Area - North Dock	-	27

TABLE 3

LAKE ROSSEAU

Sampling Point No.	Location	M.F. Coliform Count/100 ml.	
		1962	1963
RO-1	Port Carling Locks	36	54
2	Brackenrig Bay entrance	11	5
3	Windermere area off Fife House	29	4
4	Black Point (Wigwassan Lodge dock area)	36	62
5	Rostrevor Beach Resort	32	0
6	Juddhaven Area	3	5
7	Rosseau dock area	21	93
8	Morinurs Lodge Area	34	11
9	Minett Area (Paignton House	27	6
10	Minett Area (Clevelands House south of dock)	17	66
11	Woodington Area	6	12
12	Muskoka Lakes Association Area	30	6
13	Ferndale House Area (Canadian Keswick Vicinity)	19	70

TABLE 4

LAKE OF BAYS

Sampling Point No.	Location	M.F.Coliform Count/100 ml.	
		1962	1963
LB-1	Baysville Dam Area	900	16
2	Idylwyld Lodge Area	500	5
3	The Narrows	6	8
4	Nith Road Area	4	7
5	Black Point	4	Not Sampled
6	Glenmount Hotel	8	6
7	Norway Point	6	4
8	Bigwin Island Area	9	51
9	Bigwin Island Area	8	13
10		4	9
11	The Narrows	6	5
12	The Narrows @ Old Bridge	62	32
13	Trading Bay	13	17
14	East side Ten Mile Bay	3	29
15	East side Ten Mile Bay @ Sea Breeze	4	2
15A	Ronville Point Area	-	20,000
16	Fox Point	9	8
17	Haystack Bay @ Camp Site Docks	32	83
18	Haystack Bay @ Lumina Resort	9	11

TABLE 4 (cont'd)

LAKE OF BAYS

Sampling Point No.	Location	M.F. Coliform Count/100 ml.	
		1962	1963
LB-19	North-east corner Bigwin Island	18	1
20	Port Cunningham	19	14
21	North side Bigwin Island	1	3
22		3	3
23	Ideal Point	1	7
24	Birtchcroft Lodge	4	7
25	Dwight Area @ dock	3	11
25A	Mouth of Oxtongue River	9	17
26	Dwight Area	3	11
27	Rat Bay	400	9
28	South Portage @ dock	7	8
29	Brittania Hotel	11	7
30	Clovelly Point	3	1

TABLE 5

FAIRY LAKE

Sampling Point No.	Location	M.F. Coliform Count/100 ml.	
		1962	1963
FA-1	Fairy Lake at Hwy. 11A Bridge - Huntsville	3,400	1,600
2	Mouth of Muskoka River downstream from Huntsville	4,400	5,800
3	North Shore off Golden Pheasant Lodge	46	35
4	Puck's Lodge Vicinity	8	30
5	N. Muskoka R. under bridge between Fairy & Peninsula Lakes	48	40
6	Locks at Hwy. 527	82	600

TABLE 6

PENINSULA LAKE

Sampling Point No.	Location	M.F. Coliform Count/100 ml.	
		1962	1963
PE-1	Peninsula Lake east of Canal	400	2,200
2	Tally-Ho Inn Vicinity	28	15
3	Portage Lodge Vicinity	4	15
4	Springside Beach Area	1	13
5	Springside Beach Area	4	9
5A	Putin Bay	25	58

TABLE 7

MARY LAKE

Sampling Point No.	Location	M.F. Coliform Count/100 ml.	
		1962	1963
MA-1	Mary Lake & Mouth of N. Muskoka River	21	6
2	Gryffin Lodge Vicinity	19	7
2A	Mouth of Lancelot Creek	16	1,400
3	Port Sydney Public Beach	11	0
4	Port Sydney Vicinity	22	24
5	Muskoka Lodge Public Beach	58	4,900

LABORATORY LIBRARY



96936000119323

